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BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

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INFORMAL CONFERENCE

ORDER VACATING NOTICE OF
VIOLATION N2007-58-01

Bingham Canyon Mine Permit #M/035/002

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In accordance with R647-7-106, an informal conference on Notice of Violation N2007-58-01, Bingham Canyon Mine, was initiated on August 31, 2007, and suspended by written Stipulation dated September 7, 2007 in order to allow the parties to further discuss and negotiate regarding the NOV. The informal conference reconvened May 9, 2008, beginning at 10:00 a.m. for the purposes of further review of the facts of the violation, to review the proposed assessment penalty, and a proposed settlement of the NOV.

The conference was held in the office of the Department of Natural Resources, Division of Oil, Gas and Mining, in the Petroleum Room. Division Director, John Baza served as the conference officer. Chris Kaiser and Glenn Eurick appeared on behalf of Kennecott Utah Copper (KUC), and Michael Malmquist, Parsons Behle & Latimer appeared as counsel for KUC. Dana Dean, Associate Director for Mining, Beth Ericksen, Mining Engineer, Susan White, Environmental Program Manager, Daron Haddock, Environmental Manager, Lynn Kunzler, Reclamation Specialist, appeared for the Division, and Steve Alder, Assistant Attorney General, represented the Division.

The circumstances surrounding the NOV and the basic positions taken by the Division and KUC are summarized as follows:

1. As part of a storm on July 26 and 27, 2007, a substantial rainfall event occurred which, based on data from the KUC meteorological station nearest the Yosemite waste rock area, exceeded the 10 year 24 hour precipitation event.
2. As a result of the storm and the rainfall event, on July 27, 2007, a significant amount of material eroded from the face of the Yosemite waste rock area and flowed to the sediment basin below the toe of the disposal area. The eroded material filled the sediment basin and plugged the standpipe which allowed sediment-laden water to overtop the basin and flow down the adjacent access road, bypassing the eastside collection system cutoff structure immediately below the sediment basin.

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3. The sediment-laden water then reentered the Yosemite drainage, and flowed down that drainage to Butterfield Creek, where it entered and commingled with flows in the creek. Water from the creek was turned into an irrigation ditch and then flood-irrigated onto a privately owned field, where it deposited a thin layer of fine-grained sediment on an approximately 600' x 75' area of the field. A thin layer of sediment was also deposited along the path of the flow from the sediment basin down to Butterfield Creek, and a culvert was plugged where the Yosemite drainage crosses the Butterfield Canyon Road.

4. Upon discovery of this event, KUC on July 27, 2007, notified the Utah Division of Environmental Response and Remediation (DERR), the Utah Division of Water Quality (DWQ), the National Response Center and the U.S. EPA, pursuant to applicable regulations and the terms of KUC's ground water and surface water quality permits. KUC took samples of the deposited material at the KUC property boundary, from within Butterfield Creek, and from the agricultural field. Sample analysis indicated that metals levels were below potentially applicable cleanup levels for the area.

5. KUC cleaned the deposited sediment from the culvert and surface of the Butterfield Canyon Road, and removed the debris in the sediment basin below the Yosemite waste rock area, and removed these materials to the Copper Notch area of the mine.

6. Based on consideration of the storm event and the nature of the material released, the results of the sample analysis, and a field visit by DERR, DERR determined that no further cleanup was required and DWQ determined not to take any enforcement action. EPA also took no enforcement action.

7. Upon being informed of the above-described events, and after undertaking an inspection of the affected areas, the Division issued NOV N2007-58-01 to KUC on August 8, 2007, and, on September 10, 2007, the Division issued KUC a proposed penalty assessment based on the NOV.

8. On August 31, 2007, the Division and KUC engaged in an informal conference to discuss the fact of, and potential resolution of, the NOV.

9. The Division's fundamental position was that KUC's sediment control facilities below the Yosemite waste rock area were not adequately designed to manage and intercept the water and sediment flows from the Yosemite dump, resulting in the flows of potentially deleterious material from the dump face into the stream bed creating a potential for impairment of the water quality, and onto property outside of the mine permit boundary in violation of the and regulations requiring sediment from disturbed areas to be adequately controlled to minimize environmental damage, and to protect the public safety and welfare, and that a NOV should be issued and a penalty should be assessed.

10. KUC's fundamental position was that the sediment control facilities were consistent

with its DEQ water quality permits, and were adequate to contain the design storm event under those permits, and that in light of the magnitude of the storm event the Division should not have issued an NOV or assessed a penalty for essentially the same reasons that DWQ had not done so.

11. At the August 31, 2007 conference, after discussions of the issues, the parties agreed to suspend or continue the conference while they engaged in further discussions with respect to an approach by which KUC would commit to perform certain agreed-upon affirmative actions including study and potential improvement of its sediment control facilities, and by which the Division would vacate the NOV and penalty assessment based on KUC's commitments.

12. Pursuant to discussions following the August 31, 2007 conference, and as confirmed at the May 9, 2008 conference, the parties have agreed to settlement of the NOV upon the following general terms, as documented more specifically in the letters of March 20, 2008 and April 21, 2008, which letters are attached and incorporated by reference as the basis of settlement.

KUC commits to:

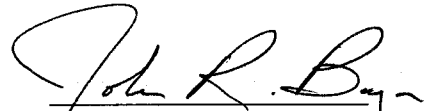
- a. Evaluation and improvement of sediment and storm water/debris management within the Yosemite drainage as detailed in Attachment 1 to the March 20th Letter;
- b. Sampling of waste rock and sediment from the cleaned-out de-silting basins, submittal of the analytical results, and update of 2003 Reclamation and Water Management Plan (2003 Plan) as detailed in Attachment 2 to the March 20th Letter;
- c. Undertake additional modeling and prepare a slope stability study to supplement the existing August 16, 2004 study, and update the 2003 Plan accordingly, as detailed in Attachment 3 to the March 20th Letter.
- d. Undertake and complete the preceding commitments consistent with the schedule included as Attachment 5 to the March 20th Letter, as modified by the schedule attached to the April 21, 2008 letter.

NOW THEREFORE, based on a finding that there is disagreement and uncertainty concerning the facts and law regarding the NOV, and based on KUC's commitments set forth above, that will allow the Division and KUC to more clearly understand the conditions at the mine, improve storm water management, clarify KUC's obligations, and will otherwise satisfy the objectives of the Act; the Division by this Order does:

- a. Vacate and withdraw NOV N2007-58-01 and the proposed penalty assessment, subject to the condition that if KUC does not complete the above-referenced commitments the NOV may be re-instated as appropriate;
- b. Require KUC to provide quarterly updates concerning its actions and progress in fulfilling the commitments that are contained in the March 20, 2008 and April 21, 2008 letters which are incorporated and made a part of this Order; and

c. Provides that this Order shall be without prejudice to the rights of either party to bring and defend future notices of violation.

DATED THIS 12TH DAY OF MAY, 2008


John Baza, Division Director

Attachments

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Kennecott Utah Copper Corporation
P.O. Box 6001
Magna, Utah 84044-6001
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Rohan McGowan-Jackson
GENERAL MANAGER \
HEALTH, SAFETY, ENVIRONMENT AND QUALITY

March 20, 2008

Ms. Mary Ann Wright
State of Utah
Department of Natural Resources/DOGM
P.O. Box 145801
Salt Lake City, Utah 84114 - 5801

Dear Ms. Wright:

Proposal for Resolution: Notice of Violation No. N2007-58-01

Thank you for your March 3, 2008 letter in response to Kennecott Utah Copper's (KUC) January 22, 2008 proposal for resolution of Notice of Violation No. N2007-58-01. KUC's January 22, 2008 letter was based upon agreed obligations from a December 17, 2007 meeting with you and your staff. In response to your March 3, 2008 letter, please find attached KUC's revised proposal to satisfy the affirmative obligations of Notice of Violation No. N2007-58-01 ("the NOV"). KUC is making this proposal with the understanding that satisfying the affirmative obligations of the NOV in this manner will result in the NOV being fully vacated and withdrawn by the Division of Oil Gas and Mining ("the Division").

In summary, KUC's proposal to satisfy the affirmative obligations of the NOV, involve three (3) major elements of work, which include:

1. Additional controls and assessments for storm water and sediment management (NOV items 1 and 2);
2. A plan for sediment sampling & removal (NOV items 3 and 3b); and
3. A slope stability study (NOV item 4)

Specific details associated with each of these three elements of work are outlined on attachments 1, 2 and 3.

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We have also provided:

- A description of how KUC's proposal addresses each of the specific requirements listed in the NOV, including item 3a (attachment 4);
- A chart showing key milestones and proposed timing of update reporting for each of the three elements of work as requested in a meeting on December 17, 2007 (attachment 5); and
- A copy of the Bingham Canyon Mine Groundwater Discharge Permit (UGW350010) issued by the Division of Water Quality (DWQ) for the Division's files was provided in a letter dated January 22, 2008 as requested in a meeting on December 17, 2007

Please also note the following additional items emanating from our December 17th meeting and the March 3, 2008 letter:

- KUC has made several minor updates to Appendix 1, 2 and 3 to address various items relating to:
 - The provision of typical design drawings for installed BMP's as well as drawings for the engineered structures;
 - Commitment to completion of a surface water hydrologic study to re-assess storm water and sediment design capacity of the South End collection system, with a focus on confirming the system is sized to handle the peak flows and sediment from a 10 year 24 hour storm.
 - The incorporation of relevant impacts from underground workings within the slope stability study; and
 - The process for developing input parameters for the DAN-W modeling exercise and inclusion of the ultimate dump configuration based on the current approved mine plan and meteorological and sediment data from the July 27, 2007 event and prior events along the South End drainages.
- Based on the March 3, 2008 letter and our discussion on March 8, 2008 and March 11, 2008:
 - DOGM and KUC have reached agreement and believe that deleterious materials were not released off KUC property since lead and arsenic concentrations are well below EPA agricultural, recreational and commercial clean-up standards established for the Herriman area. This data is contained within a letter submitted to DOGM dated August 8, 2007 and detailed in Attachment 4 to this letter (NOV item 3a).

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- Text within the 2003 Reclamation and Water Management Plan will be updated to include general wording on sampling methodology, similar to the wording in Attachment 2 (NOV item 3 and 3b).
- I understand from our discussion on December 17th 2007 that the Division would like KUC to:
 - a) Initially incorporate KUC's commitment to perform the work associated with this proposal within the 2003 Reclamation and Water Management Plan; and
 - b) Upon completion of the work, further update the 2003 Reclamation and Water Management Plan to remove the commitment to perform the work and include the relevant final reports and/or design drawings by reference as an appendix to the plan.
 - c) Upon completion of the work, KUC and the Division will meet to discuss implementation of any recommendations from the hydrologic and slope stabilization studies.

As you will recall from previous correspondence, KUC is of the opinion that these types of activities are within the approval envelope of our existing NOI and therefore should be considered as updates (and not amendments) to the 2003 Reclamation and Water Management Plan. Nevertheless, as in the past, and in order to assist the Division in inserting the material into existing records, KUC will plan to provide the information outlined in parts a) and b) above on Form MR-REV. However, submission of these forms should not be construed that these activities represent an amendment to the 2003 Reclamation and Water Management Plan.

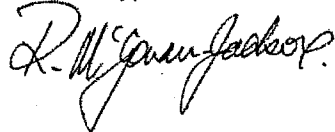
- KUC is in the process of having material at the Copper Notch repository sampled to determine suitability as reclamation growth media.
- KUC continues to work with the third party landowner to reach agreement on removing the sediment from the July 27th 2007 storm event. KUC is committed to removing this material, but is waiting for the third party to grant access to the property. KUC remains hopeful that an agreement to allow access will be obtained in the near future.
- The Division attended and participated in a presentation on acid rock drainage (ARD) management technologies on January 16, 2008. The presentation provided additional information about store and release cover systems, which is part of KUC's long term experimental reclamation program. Consistent with the 1978 reclamation contract, KUC is committed to maintaining a program of experimentation and the application of best available technology towards rehabilitation of the land affected by mining operations.

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Finally, please note that KUC is of the belief that if a facility is appropriately designed, constructed and maintained, the fact that the facility fails to achieve full containment of storm water, sediment or debris as a result of an exceptional event (e.g., high return interval precipitation events) should not result in a regulatory violation. This is consistent with the requirements of the Bingham Canyon Mine Groundwater Discharge Permit and the Utah Pollutant Discharge Elimination System program and associated Stormwater Pollution Prevention Plan administered by the Utah Division of Water Quality as applied to the South End dumps. In this regard, KUC's expectation is that the actions associated with this work program will provide the Division with confidence regarding the appropriateness of relevant KUC facilities, and will therefore reduce the likelihood of any enforcement activity on behalf of the Division resulting from future exceptional events.

KUC sincerely appreciates the Division's willingness to work collaboratively to achieve a productive and mutually beneficial resolution to these issues. Should you wish to discuss these issues further, please contact me at 569-6000.

Sincerely,



Rohan McGowan-Jackson,
General Manager Health, Safety, Environment and Quality

RMJ/CK

Attachments

cc: D. Haddock B. Ericksen
 T. Munson P. Baker
 S. White (all w/out Attachment 4)

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ATTACHMENT 1

**Implementation of Additional Controls for Storm Water and Sediment Management
within the South End Drainages**

**Implementation of Additional Controls for Storm Water and
Sediment Management within the South End Drainages**

KENNECOTT UTAH COPPER (KUC)

**SUBMITTED TO
THE UTAH DIVISION OF OIL, GAS AND MINING
MARCH 2008**

ADDITIONAL SEDIMENT AND STORM WATER CONTROLS

KUC will implement the following activities to evaluate and, as appropriate, improve sediment and storm water/debris management within the Yosemite drainage:

- Completion of a professional engineering assessment of the Yosemite drainage. KUC completed this initial assessment on August 1, 2007. The assessment provided the following:
 - Engineering design for construction and installation of a riser pipe on the up gradient side of the pipeline road berm.
 - Recommended the use of debris flow modeling software (DAN-W) for an order of magnitude estimate of distance, velocity and deposition depth of debris flows as well as an estimate of storm and debris flow design capacity.
- Removal of sediment from existing desilting basins and check dams within the Yosemite drainage (above and below the cutoff wall). This was completed by August 30, 2007.
- Particle size analysis of sediment obtained from a down gradient check dam.
- Increase the number of desilting basins between the Yosemite cutoff wall and the toe of the waste rock dump that span the length of the drainage.
- Increase the height and reinforce desilting basins and check dams with angular rocks and boulders.
- Construct additional trenches and meandering dams from angular rock between the cutoff wall and the toe of the Yosemite waste rock dumps.
- Use of bulldozers to dress the tops of the desilting basins up gradient of the cutoff wall and create staggered overflow cut-outs. Desilting basin berm tops will be brought to a consistent elevation to prevent water from short circuiting the basins. Alternating sides of each berm will be dressed to a lower elevation to ensure appropriate routing of water through the basins.
- Construct a new engineered overflow inlet box for the large desilting basin immediately up gradient of the Yosemite cutoff wall. The structure will be similar in design to the overflow inlet box within the Saints Rest desilting basin.
- Installation of an engineered riser pipe with a trash hood and rack for debris management on the up gradient side of the pipeline road berm.
- Completion of a debris flow modeling exercise (DAN-W) using topographic maps, debris basin storage capacity, meteorological data and quantity of sediment/debris transported during the July 27, 2007 event as well as prior events along the South End drainages. These activities are being completed as part of the slope stability study. The modeling exercise will provide KUC with an estimate of the expected sediment volume and flow distance from storm events.
- Completion of typical design drawings for installed BMP's (desilting basins and an updated collection system schematic) as well as engineered drawings for the engineered structures (riser pipe and overflow inlet structure). The drawings will be included as an appendix to the 2003 Reclamation and Water Management plan. Text within the 2003 plan will be updated to include a reference to the drawings within the appendix.

- Completion of a surface hydrologic study to re-assess storm water and sediment design capacity of the collection system in Yosemite, with focus on confirming the system is sized to handle peak flows and sediment from a 10-year 24 hour storm. The study will be included as an appendix to the 2003 Reclamation and Water Management plan. Text within the 2003 plan will be updated to include a commitment to perform the study. Once the study has been completed, text within the 2003 plan will be updated to include a reference to the study, which will be contained within an appendix. Once the hydrologic study has been completed KUC intends to meet with the Division and discuss implementation of potential recommendations.

The total number of surface acres affected and permitted disturbed acreage will be unchanged and remain consistent with the original 1976 NOI, 1978 Mining and Reclamation contract as well as the Bingham Canyon Mine 2003 Reclamation and Water Management Plan. All activities associated with completion of additional sediment and storm water/debris controls will take place within the current disturbed footprint and will not result in any newly disturbed areas.

During completion of additional sediment and storm water controls there will be no changes to the operating plan, as KUC will continue to operate open pit mining, removing ore, placing waste rock on top of existing waste rock dumps and continuing exploration, development and dewatering activities within the permit boundary and existing disturbed areas. In addition, KUC's general plans regarding the reclamation treatments for the waste rock dumps (Figure 4-6) will not change as a result of this activity.

Time Frame

Upon completion of the above mentioned activities, KUC will provide typical design drawings for installed BMP's (desilting basins and an updated collection system schematic), engineered drawings for the engineered structures (riser pipe and overflow inlet structure) as well as completed study reports. The reports and drawings will be included as an appendix to the 2003 Reclamation and Water Management plan. Text within the 2003 plan will be updated to include a reference to the drawings within the appendix.

- Final updated text within the 2003 Reclamation and Water Management Plan and attachments containing typical design drawings for installed BMP's (desilting basins and an updated collection system schematic), engineered drawings for the engineered structures (riser pipe and overflow inlet structure) and study reports – October 2008.
- Completion of DAN-W debris flow modeling – March 2009.
- Completion of a surface water and sediment hydrologic study – October 2008.

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ATTACHMENT 2

Plan for Sediment Sampling and Removal

Plan for Sediment Sampling and Removal

KENNECOTT UTAH COPPER (KUC)

**SUBMITTED TO
THE UTAH DIVISION OF OIL, GAS AND MINING
MARCH 2008**

SAMPLING PLAN

A total of 2460 cubic yards of sediment was excavated from the Yosemite drainage desilting basins following the July 27, 2007 event. All the material was placed up gradient of the Copper cutoff wall, between the base of the Keystone dump and the up gradient side of the Copper notch soil pile ("Repository").

Sediment removed from the Yosemite drainage following the July 27, 2007 event was eroded from the Yosemite waste rock disposal area. Based on surface samples obtained between 1998 and 2002 (Figure 4-1 within the Bingham Canyon Mine 2003 Reclamation and Water Management Plan) the Yosemite waste rock surface contains abundant unweathered sulfides, generally elevated soil salinity (>2000 umhos/cm) and generally low pH (<4.0). Although sediment excavated from the Yosemite drainage will likely have similar characteristics, at the request of the Division, KUC will sample and analyze the sediment to determine whether it is suitable as reclamation growth media.

The methodology for sampling waste rock and sediment from the clean-out of desilting basins will be consistent with the sampling protocol specified in Appendix B of the Bingham Canyon Mine groundwater discharge permit (UGW350010) issued by the Utah Division of Water Quality. As such, the sampling plan will involve the following:

- Obtain one composite sample of excavated sediment at the base of the Keystone dump.
- The sample will consist of a fifteen point composite.
- The samples will be arranged in a manner to be representative of the excavated sediment.
- Samples will be collected over a 0-12 inch interval.
- Each sample location will be surveyed using a handheld GPS.

The composite sample will be homogenized and split in two for geochemical and physical analysis:

- Geochemical Analysis
 - Paste pH
 - Paste Conductivity
 - Acid-Base Account (Sobek Acid-Base Account and Net Acid Generating (NAG) testing)
- Physical Analysis
 - Texture (Particle Size Distribution - PSD)

Future sediment excavated from the desilting basins will be placed back within the waste rock disposal area and not on the Copper Notch soil pile.

The total number of surface acres affected and permitted disturbed acreage will be unchanged and remain consistent with the original 1976 NOI, 1978 Mining and Reclamation contract as well as the Bingham Canyon Mine 2003 Reclamation and Water Management Plan. All activities associated with the placement and sampling of

excavated sediment will take place within the current disturbed footprint and will not result in any newly disturbed areas.

There will be no changes to the operating plan, as KUC will continue to operate open pit mining, removing ore, placing waste rock on top of existing waste rock dumps and continuing exploration, development and dewatering activities within the permit boundary and existing disturbed areas. In addition, KUC's general plans regarding the reclamation treatments for the waste rock dumps (Figure 4-6) will not change as a result of this activity.

Time Frame

Once the sampling has been completed and analytical results received, KUC will submit the results as well as a map showing the location of the clean out material, and sampling locations in relation to the Copper Notch soil pile (which contains material removed from Bastian Sink and the South Jordan Evaporation Ponds). Based on the analytical results, KUC will determine whether the sediment excavated from the Yosemite drainage will be a suitable as reclamation growth media.

- Completion of sampling – April 2008.
- Submittal of analytical results and map - May 2008
- Updated text within the 2003 Reclamation and Water Management Plan to include general wording on sampling methodology similar to the text within this attachment – June 2008.

FUTURE SEDIMENT REMOVAL

The Bingham Canyon Mine groundwater discharge permit (UGW350010) issued by the Utah Division of Water Quality uses a discharge minimization approach through implementation of best available technology which includes construction specifications and approved designs for physical containment structures including cutoff walls, French drains, HDPE pipelines, collection boxes, extraction wells as well as concrete lined ditches as a backup mechanism for stormwater containment. The best available technology also includes inspection and maintenance commitments included in the compliance monitoring plan contained within Appendix A of the groundwater discharge permit. The methodology for inspection, maintenance and clean-out of the desilting basins will continue to remain consistent with the requirements of the Bingham Canyon Mine groundwater discharge permit (UGW350010).

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ATTACHMENT 3

Additional Slope Stability Study for Waste Rock within the South End Drainages

**Additional Slope Stability Study for Waste Rock within the South
End Drainages**

KENNECOTT UTAH COPPER (KUC)

**SUBMITTED TO
THE UTAH DIVISION OF OIL, GAS AND MINING
MARCH 2008**

SCOPE OF WORK FOR ADDITIONAL SLOPE STABILITY STUDY

In a report dated August 16, 2004 KUCC submitted the results of a slope stabilization study for the South End waste rock dumps (the South End dumps are depicted on a dump location map associated with that study). As committed within the Bingham Canyon Mine 2003 Reclamation and Water Management Plan, the study involved an assessment of the risk of contaminated water and sediment release for each drainage and an engineering assessment of the cost of various slope stabilization methods for each drainage. The study looked at the risk of large scale deep seated failures and surface slumping and debris flows.

The proposed scope of work will further investigate the risk and mechanism for large-scale deep seated failures and well as surface slumping and debris flows. The overall goal of the study will be to investigate the long-term stability of the KUC South End waste rock dumps. In this context, the study will assimilate the available historical data and begin quantifying the aspects of surface water infiltration, geochemistry and geotechnical conditions that contribute to waste rock dump stability.

Scope of Work

- Review and compilation of available historical reports regarding geochemistry, groundwater, foundation geology, waste rock material types, waste rock strength, density and dump construction for the South End dumps.
- Compilation of available maps and geologic data into a geographic information system (GIS) to develop a geologic map below the South End dumps.
- Compilation of data from surface reconnaissance of the South End dumps to observe evidence of particle cementation, surface material types and current dump stability.
- Compilation of data from shallow subsurface investigations including geochemistry (paste pH, paste conductivity, Sobek acid-base account, quantitative and qualitative X-Ray Diffraction), hydraulic conductivity/permeability (laboratory and in-situ from Guelph Permeameter and/or constant head pressure infiltrometer), plasticity and specific gravity (laboratory based hydrometer testing), particle size analysis (wash sieve analysis) and moisture content (laboratory Soil-Water Characteristic Curve testing and in-situ Diviner 2000® portable soil moisture probe). The lab and field data will be correlated to well published soil moisture, material and geochemical properties.
- Compilation of topographic maps including the ultimate dump configuration based on the current approved mine plan, debris basin storage capacity, meteorological data and quantity of debris transported during the July 27 event as well as precipitation and debris/sediment information from prior events along the South End dumps.

- Investigate potential impacts from underground workings beneath the South End dumps.

Outcome

- Geology, groundwater, dump construction, underground workings and waste rock material properties will be used to evaluate the internal geotechnical conditions of the waste rock dumps, estimate foundation conditions and develop dump geometries for stability analysis related to the potential for deep-seated failures.
- The geochemical and mineralogical data will be used to assess the degree of cementation and cohesion to make an estimate of waste rock dump shear strength and stability related to the potential for deep-seated failures.
- The shallow subsurface investigations, moisture conditions, meteorological data and waste rock material properties will be used to evaluate the infiltration characteristics of the waste rock dumps (using a two dimensional saturated-unsaturated numeric soil-atmosphere modeling program called VADOSEW).
- The topography (including the ultimate dump configuration based on the current approved mine plan), meteorological data, debris basin storage capacity and quantity of debris transported during the July 27 as well as prior events event will be used to estimate the distance, velocity and deposition depth of debris flows. The assessment will be made using DAN-W debris flow modeling software. The modeling exercise will provide KUC with an estimate of the expected sediment volume and flow distance from storm events.

No maps, drawings or photographs within the Bingham Canyon Mine 2003 Reclamation and Water Management Plan require updating for the slope stabilization study.

The total number of surface acres affected and permitted disturbed acreage will be unchanged and remain consistent with the original 1976 NOI, 1978 Mining and Reclamation contract as well as the Bingham Canyon Mine 2003 Reclamation and Water Management Plan. All activities associated with completion of the slope stability study will take place within the current disturbed footprint and will not result in any newly disturbed areas.

During completion of the slope stability study there will be no changes to the operating plan, as KUC will continue to operate open pit mining, removing ore, placing waste rock on top of existing waste rock dumps and continuing exploration, development and dewatering activities within the permit boundary and existing disturbed areas. In addition, KUC's general plans regarding the reclamation treatments for the waste rock dumps (Figure 4-6) will not change as a result of this activity.

KUC will keep the Division informed and involved on input parameters for the DAN-W modeling exercise, with the understanding that that input parameters are dictated by the model and that KUC uses consultants to perform the modeling exercise. Consultants use professional knowledge and experience to estimate variables and boundary

conditions. All the assumptions and input parameters will be explained in detail in the final report.

Time Frame

KUC will update the wording in the 2003 Reclamation and Water Management Plan to contain a commitment to perform the DAN-W modeling and an additional slope stability study. Once the studies are completed, the final reports will be attached as an appendix to the 2003 plan. The 2003 plan will also be updated to show that the commitment for the original August 16, 2004 slope stabilization study has already been completed and the report will be attached as an appendix to the 2003 plan.

- Update the 2003 plan to contain a commitment to perform the DAN-W modeling and an additional slope stability study – June 2008.
- Update the 2003 plan to show that the original August 16, 2004 slope stabilization study has been completed and attach the study as an appendix to the plan – June 2008.
- Completion and submittal of the slope stability study and DAN-W debris flow modeling as an appendix to the 2003 plan– March 2009.

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ATTACHMENT 4

**Description of how KUC's Proposal Addresses each of the Specific Requirements
Listed in N2007-58-01**

**Description of how KUC's Proposal Addresses each of the
Specific Requirements Listed in N2007-58-01**

KENNECOTT UTAH COPPER (KUC)

**SUBMITTED TO
THE UTAH DIVISION OF OIL, GAS AND MINING
MARCH 2008**

Attached is Kennecott Utah Copper's ("KUC") proposal to satisfy the affirmative obligations of Notice of Violation No. N2007-58-01 ("the NOV"). KUC is making this proposal with the understanding that satisfying the affirmative obligations of the NOV in a manner acceptable to the Division of Oil Gas and Mining ("the Division") will result in the NOV being fully vacated and withdrawn.

KUC's proposals to address each of the affirmative obligations of the NOV are listed below along with the original text from the NOV. At the Division's request, KUC has worked with Division staff to agree upon the deliverables listed in each proposal.

Item 1. Identify appropriate and additional measure(s) to avoid or minimize future damage to natural channels.

This item is addressed in Attachment 1 which includes additional controls for storm water and sediment management in the Butterfield Canyon watershed. Specifically this attachment includes improved best management practices for runoff and debris management in the area and a commitment to complete an engineering and hydrologic assessment of runoff and debris management in the Yosemite drainage.

Item 2. Provide detailed erosion control designs for all erosion control structures to show sediment is being controlled, contained, and treated in the Butterfield Canyon area. Optimize these designs.

In addition to detailed design drawings and calculations provided on September 11, 2007, a drawing representing all current runoff and sediment control best management practices and structures will be submitted to the Division upon completion of the near term work outlined in Attachment 1. This will be provided to the Division in a form suitable for inclusion within the Bingham Canyon Mine 2003 Reclamation and Water Management Plan. Also included in Attachment 1 is a commitment to complete an engineering and hydrologic assessment of runoff and debris management in the Yosemite drainage.

In addition, as discussed in the December 17, 2007 meeting, KUC will also provide typical design drawings for installed BMP's (desilting basins and an updated collection system schematic), drawings for the engineered structures (riser pipe and overflow inlet structure) and a copy of the engineering and hydrologic assessment in a form suitable for inclusion in the 2003 Reclamation and Water Management Plan.

Item 3. Demonstrate how deleterious materials (sediment) will be kept in an isolated condition to minimize or prevent any physical or chemical conditions in the soils and/or water so that environmental effects are adequately controlled.

Sediment will be controlled utilizing the runoff and debris best management practices and structures and near term proposed improvements detailed in Attachment 1. The further engineering assessment identified in Attachment 1 will

address the adequacy of existing best management practices and recommend additional improvements as appropriate.

Item 3 (continued). Establish and submit an implementable sediment-sampling plan before relocating sediment materials that meets Division approval.

Attachment 2 includes a plan for sediment sampling and removal that will be implemented on an ongoing basis in conjunction with inspection, maintenance and clean-out procedures for the desilting basins specified in the Bingham Canyon Mine groundwater discharge permit UGW350010.

Text within the 2003 Reclamation and Water Management Plan will be updated to include a general sampling methodology similar to the wording in Attachment 2.

Item 3a. Any sediment/debris that flowed outside of the permit area shall be cleaned-up and removed to a Division-approved location.

Following the July 27, 2007 event KUC arranged to excavate and haul sediment that flowed off site and was deposited on the west side of the Butterfield Canyon county road. Using a backhoe and a dump truck, KUC removed approximately 28 cubic yards of material and hauled it to the base of the Keystone waste rock dumps, immediately up gradient of the Copper Notch soil pile ("Repository"). Following the removal, some sediment remained in the culvert under the Butterfield Canyon county road that drains to Butterfield Creek. To remove this sediment, a specialty contractor was brought on site the week of September 24, 2007. Using a high pressure water hose, the sediment within the culvert was dislodged and the sediment-water mixture was collected and contained with a vacuum truck. Approximately 5,000 gallons of sediment mixed with water was removed from the culvert and deposited at the base of the Keystone waste rock dumps.

Following sediment removal activities, the Butterfield Canyon county road and the culvert were inspected and photographed by Tom Munson of your staff on October 11, 2007. The site visit was followed by a letter from Tom Munson, dated October 11, 2007; he did not identify any additional actions or recommendations for sediment clean-up in this area.

KUC continues to work with the third party landowner to reach agreement on removing the sediment from the July 27th 2007 storm event. KUC remains committed to removing this material, but is waiting for the third party to grant access to the property.

As described in the August 8, 2007 letter addressed to EPA, DWQ and DERR (and copied to DOGM) three composite samples were obtained from the third party land owner agricultural field (DS-001, DS-002, DS-003). Lead content from the three samples averaged 1363 mg/kg, while arsenic was less than 100 mg/kg, well below the agricultural, recreational and commercial clean-up levels established by EPA for lead and arsenic in the Herriman area. Certificates of

analysis are contained within the August 8, 2007 letter. Based on the EPA established clean-up levels and a discussion on March 8, 2008, DOGM and KUC have reached agreement that deleterious materials were not released off KUC property. Regardless, KUC will continue to work with the landowner to reach agreement on sediment removal.

Item 3b. Identify where the removed sediment has been deposited and commit to remove the material to a Division-approved [location].

The removed sediment has been deposited in the waste rock disposal area near the toe of the Keystone dump and above the Copper cutoff wall. Because the material has been placed with other similar material with appropriate controls, it is not expected that the material will adversely affect plant growth or water quality. This material, and future material of similar origin will be managed in accordance with procedures specified in Attachment 2.

Item 4. Commit to establishing stability analysis plans for the waste dump area(s) that contribute to Butterfield Canyon watershed. Determine an appropriate slope stabilization method for all waste dumps contributing to Butterfield canyon area (which may include reducing the angle of repose of the dump slope).

Attachment 3 includes KUC's commitment to conduct an additional detailed slope stability study in a format suitable for inclusion in the 2003 Reclamation and Water Management Plan. KUC has also submitted two copies of the August 16, 2004 Slope Stabilization Study and Re-grading design in a format suitable for inclusion in the 2003 Reclamation and Water Management Plan. This was requested in the Division's October 26, 2007 letter.

**CONFIDENTIAL
SETTLEMENT
PROPOSAL**

ATTACHMENT 5

**Key Milestones and Proposed Timing for Completion of Items Listed in Attachments 1,
2 and 3.**

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Rohan McGowan-Jackson
General Manager, HSEQ

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APR 21 2008

DIV. OF OIL, GAS & MINING



April 21, 2008

Ms. Susan White
State of Utah
Department of Natural Resources/DOGM
P.O. Box 145801
Salt Lake City, Utah 84114 - 5801

Dear Ms. White:

Amendment to Proposal for Resolution: Notice of Violation No. N2007-58-01

Thank you for your recent call in response to Kennecott Utah Copper's (KUC) March 20, 2008 proposal for resolution of Notice of Violation No. N2007-58-01 ("the NOV"). Attached please find an updated copy of attachment 5. This chart of key milestones has been updated to reflect April 30, 2008 as the start date of work to perform the agreed upon tasks to address the affirmative obligations of the NOV. Additionally, assurances to update the 2003 Reclamation and Water Management Plan to include commitments to perform long term studies have been moved from the text of the proposal to attachment 5.

KUC understands that the scope of activities shall be defined by KUC's March 20, 2008 proposal as amended by the updated attachment 5 being submitted today.

KUC sincerely appreciates the Division's willingness to work collaboratively to achieve a productive and mutually beneficial resolution to these issues. Should you wish to discuss these issues further, please contact me at 569-6000.

Sincerely,

for Rohan McGowan-Jackson
General Manager, HSEQ

Attachments

CC: John Baza
Beth Ericksen

